

# Product Environmental Profile

## Lexium LEX18 Servo Drive 400W

### Servo system





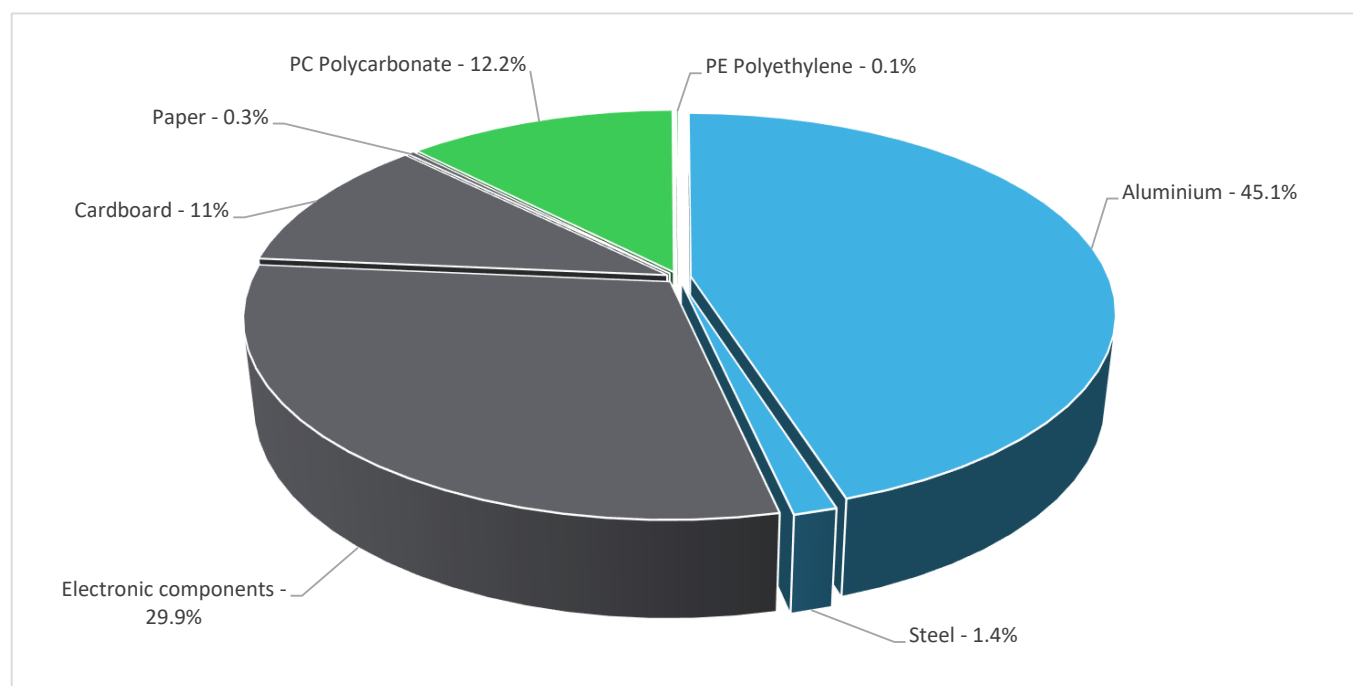
## General information

|                            |                                                                                                                                                                                                                                                                                                                |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Representative product     | Lexium LEX18 Servo Drive 400W - LXM18PDU04M2X                                                                                                                                                                                                                                                                  |
| Description of the product | The main purpose of the LXM18 servo drive is the speed control and variation of BCH18 servo motor for general application, to achieve a high performance drive solution.                                                                                                                                       |
| Description of the range   | <p>This range consists of products LXM18 servo drive, with power from 50w to 3000w for operation on 220V AC control supply</p> <p>The environmental impacts of this referenced product are representative of the impacts of the other products of the range which are developed with a similar technology.</p> |
| Functional unit            | During the 10 years, Lexium LXM18 servo drive is provide a normal duty 400W servo motor with its operating position, speed and torque suitable for the machine's operating point, in 220V power supply.                                                                                                        |



## Constituent materials

|                        |                                                                                     |
|------------------------|-------------------------------------------------------------------------------------|
| Reference product mass | 1340 g including the product, its packaging and additional elements and accessories |
|------------------------|-------------------------------------------------------------------------------------|



|          |       |
|----------|-------|
| Plastics | 12.3% |
| Metals   | 46.5% |
| Others   | 41.2% |



## Substance assessment

Products of this range are designed in conformity with the requirements of the RoHS directive (European Directive 2011/65/EU of 8 June 2011) and do not contain, or only contain in the authorised proportions, lead, mercury, cadmium, hexavalent chromium or flame retardants (polybrominated biphenyls - PBB, polybrominated diphenyl ethers - PBDE) as mentioned in the Directive

Details of ROHS and REACH substances information are available on the Schneider-Electric Green Premium website  
<https://www.se.com/ww/en/work/support/green-premium/>



## Additional environmental information

The Lexium LEX18 Servo Drive 400W presents the following relevant environmental aspects

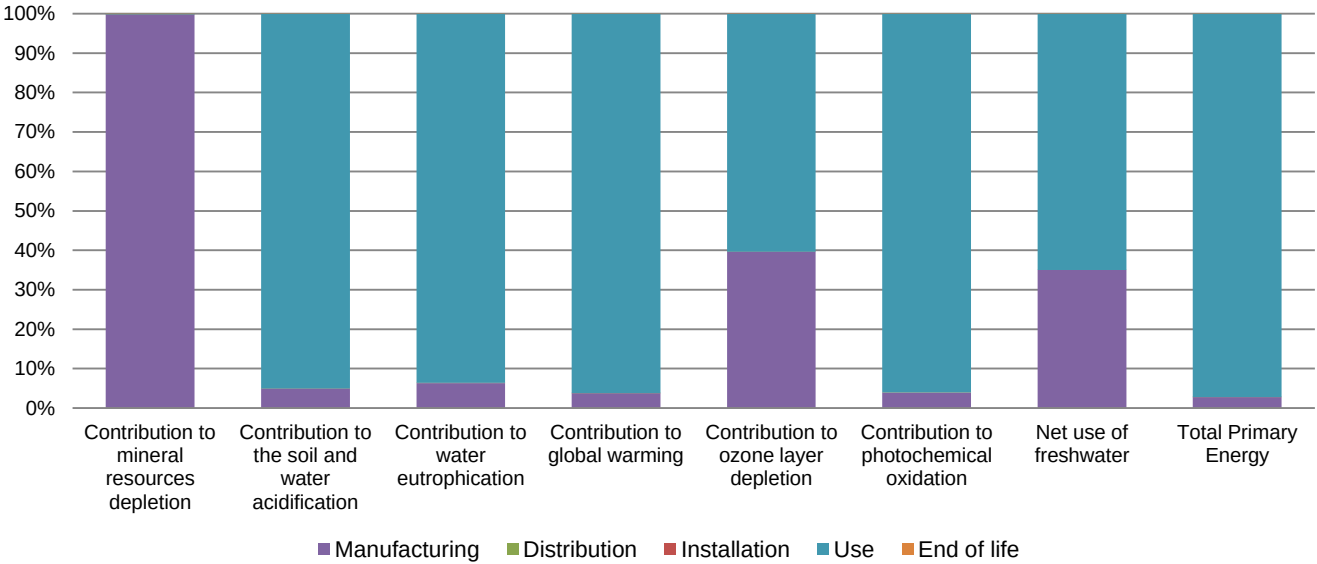
|               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Design        | Products are designed to be "Green Premium".                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Manufacturing | Manufactured at a Schneider Electric production site ISO14001 certified                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Distribution  | Weight and volume of the packaging optimized, based on the European Union's packaging directive<br>Packaging weight is 150 g, consisting of Cardboard 148g (98.66%), PE film 1g (0.67%), paper 1g (0.67%) .<br>Product distribution optimised by setting up local distribution centres                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Installation  | The product does not require special installation procedure and requires little to no energy to install. The disposal of the packaging materials are accounted for during the installation phase.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Use           | The product does not require special maintenance operations.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| End of life   | End of life optimized to decrease the amount of waste and allow recovery of the product components and materials<br><br>This product contains Electronic Board (Communication) (108.06g)<br>Electronic Board (Power) (178.16g)<br>Electrolyte Capacitors (115.88g) that should be separated from the stream of waste so as to optimize end-of-life treatment.<br><br>The location of these components and other recommendations are given in the End of Life Instruction document which is available on the Schneider-Electric Green Premium website<br><br><a href="http://www2.schneider-electric.com/sites/corporate/en/products-services/green-premium/green-premium.page">http://www2.schneider-electric.com/sites/corporate/en/products-services/green-premium/green-premium.page</a><br><br>Recyclability potential: <b>67%</b> Based on "ECO'DEEE recyclability and recoverability calculation method" (version V1, 20 Sep. 2008 presented to the French Agency for Environment and Energy Management: ADEME). |



## Environmental impacts

|                                  |                                                                                                                                                                          |                                                             |                                                             |                                                             |
|----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|-------------------------------------------------------------|-------------------------------------------------------------|
| Reference life time              | 10 years                                                                                                                                                                 |                                                             |                                                             |                                                             |
| Product category                 | Other equipments - Active product                                                                                                                                        |                                                             |                                                             |                                                             |
| Installation elements            | No special components needed                                                                                                                                             |                                                             |                                                             |                                                             |
| Use scenario                     | The product is in active mode 80% of the time a power use of 28.4W and in stand-by mode 20% of the time with a power use of 14.7W, for 10 years.                         |                                                             |                                                             |                                                             |
| Geographical representativeness  | China                                                                                                                                                                    |                                                             |                                                             |                                                             |
| Technological representativeness | The main purpose of the LXM18 servo drive is the speed control and variation of BCH18 servo motor for general application, to achieve a high performance drive solution. |                                                             |                                                             |                                                             |
| Energy model used                | Manufacturing                                                                                                                                                            | Installation                                                | Use                                                         | End of life                                                 |
|                                  | Energy model used: China                                                                                                                                                 | Electricity mix; AC; consumption mix, at consumer; 220V; CN | Electricity mix; AC; consumption mix, at consumer; 220V; CN | Electricity mix; AC; consumption mix, at consumer; 220V; CN |

| Compulsory indicators                            |                                     | Lexium LEX18 Servo Drive 400W - LXM18PDU04M2X |               |              |              |          |             |
|--------------------------------------------------|-------------------------------------|-----------------------------------------------|---------------|--------------|--------------|----------|-------------|
| Impact indicators                                | Unit                                | Total                                         | Manufacturing | Distribution | Installation | Use      | End of Life |
| Contribution to mineral resources depletion      | kg Sb eq                            | 7.43E-03                                      | 7.42E-03      | 0*           | 0*           | 1.00E-05 | 0*          |
| Contribution to the soil and water acidification | kg SO <sub>2</sub> eq               | 2.61E+00                                      | 1.29E-01      | 7.89E-04     | 0*           | 2.48E+00 | 5.02E-04    |
| Contribution to water eutrophication             | kg PO <sub>4</sub> <sup>3-</sup> eq | 6.99E-01                                      | 4.43E-02      | 1.82E-04     | 0*           | 6.54E-01 | 1.96E-04    |
| Contribution to global warming                   | kg CO <sub>2</sub> eq               | 2.38E+03                                      | 8.98E+01      | 0*           | 0*           | 2.29E+03 | 5.29E-01    |
| Contribution to ozone layer depletion            | kg CFC11 eq                         | 3.02E-05                                      | 1.20E-05      | 0*           | 0*           | 1.82E-05 | 2.53E-08    |
| Contribution to photochemical oxidation          | kg C <sub>2</sub> H <sub>4</sub> eq | 3.05E-01                                      | 1.18E-02      | 5.63E-05     | 0*           | 2.93E-01 | 4.56E-05    |
| Resources use                                    | Unit                                | Total                                         | Manufacturing | Distribution | Installation | Use      | End of Life |
| Net use of freshwater                            | m3                                  | 3.93E+00                                      | 1.37E+00      | 0*           | 0*           | 2.55E+00 | 0*          |
| Total Primary Energy                             | MJ                                  | 3.85E+04                                      | 1.06E+03      | 0*           | 0*           | 3.74E+04 | 0*          |



| Optional indicators                                                                             |      | Lexium LEX18 Servo Drive 400W - LXM18PDU04M2X |               |              |              |          |             |
|-------------------------------------------------------------------------------------------------|------|-----------------------------------------------|---------------|--------------|--------------|----------|-------------|
| Impact indicators                                                                               | Unit | Total                                         | Manufacturing | Distribution | Installation | Use      | End of Life |
| Contribution to fossil resources depletion                                                      | MJ   | 3.55E+04                                      | 9.15E+02      | 0*           | 0*           | 3.45E+04 | 0*          |
| Contribution to air pollution                                                                   | m³   | 2.44E+05                                      | 6.69E+03      | 0*           | 0*           | 2.37E+05 | 0*          |
| Contribution to water pollution                                                                 | m³   | 1.21E+05                                      | 7.20E+03      | 2.84E+01     | 0*           | 1.14E+05 | 2.80E+01    |
| Resources use                                                                                   | Unit | Total                                         | Manufacturing | Distribution | Installation | Use      | End of Life |
| Use of secondary material                                                                       | kg   | 8.12E-01                                      | 8.12E-01      | 0*           | 0*           | 0*       | 0*          |
| Total use of renewable primary energy resources                                                 | MJ   | 1.96E+03                                      | 3.94E+01      | 0*           | 0*           | 1.92E+03 | 0*          |
| Total use of non-renewable primary energy resources                                             | MJ   | 3.65E+04                                      | 1.02E+03      | 0*           | 0*           | 3.55E+04 | 0*          |
| Use of renewable primary energy excluding renewable primary energy used as raw material         | MJ   | 1.96E+03                                      | 3.89E+01      | 0*           | 0*           | 1.92E+03 | 0*          |
| Use of renewable primary energy resources used as raw material                                  | MJ   | 5.00E-01                                      | 5.00E-01      | 0*           | 0*           | 0*       | 0*          |
| Use of non renewable primary energy excluding non renewable primary energy used as raw material | MJ   | 3.65E+04                                      | 1.01E+03      | 0*           | 0*           | 3.55E+04 | 0*          |
| Use of non renewable primary energy resources used as raw material                              | MJ   | 9.85E+00                                      | 9.85E+00      | 0*           | 0*           | 0*       | 0*          |
| Use of non renewable secondary fuels                                                            | MJ   | 0.00E+00                                      | 0*            | 0*           | 0*           | 0*       | 0*          |
| Use of renewable secondary fuels                                                                | MJ   | 0.00E+00                                      | 0*            | 0*           | 0*           | 0*       | 0*          |

| Waste categories                | Unit | Total    | Manufacturing | Distribution | Installation | Use      | End of Life |
|---------------------------------|------|----------|---------------|--------------|--------------|----------|-------------|
| Hazardous waste disposed        | kg   | 1.78E+02 | 1.03E+02      | 0*           | 0*           | 7.37E+01 | 2.00E+00    |
| Non hazardous waste disposed    | kg   | 4.44E+02 | 2.88E+01      | 0*           | 0*           | 4.15E+02 | 0*          |
| Radioactive waste disposed      | kg   | 2.86E-02 | 1.49E-02      | 4.38E-06     | 0*           | 1.37E-02 | 1.45E-05    |
| Other environmental information | Unit | Total    | Manufacturing | Distribution | Installation | Use      | End of Life |
| Materials for recycling         | kg   | 1.04E+00 | 9.83E-02      | 0*           | 1.49E-01     | 0*       | 7.93E-01    |
| Components for reuse            | kg   | 0.00E+00 | 0*            | 0*           | 0*           | 0*       | 0*          |
| Materials for energy recovery   | kg   | 1.25E-01 | 0*            | 0*           | 0*           | 0*       | 1.25E-01    |
| Exported Energy                 | MJ   | 4.71E-04 | 4.43E-05      | 0*           | 4.27E-04     | 0*       | 0*          |

\* represents less than 0.01% of the total life cycle of the reference flow

Life cycle assessment performed with EIME version EIME v5.9.4, database version 44562 in compliance with ISO14044.

The use phase is the life cycle phase which has the greatest impact on the majority of environmental indicators (based on compulsory indicators).

According to this environmental analysis, proportionality rules may be used to evaluate the impacts of other products of this range.

According to this environmental analysis, all the impacts (excepted "Mineral resources depletion") of other products in this family may be proportionally extrapolated by energy consumption values.

For "Mineral resources depletion", the impacts may be proportionally extrapolated by the products weights.

Please note that the values given above are only valid within the context specified and cannot be used directly to draw up the environmental assessment of an installation.

|                                                                                                                                                             |                  |                                     |                                                                      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-------------------------------------|----------------------------------------------------------------------|
| Registration number                                                                                                                                         | ENVPEP2301009_V1 | Drafting rules                      | PCR-ed3-EN-2015 04 02                                                |
| Date of issue                                                                                                                                               | 03/2023          | Supplemented by                     | PSR-0005-ed2-EN-2016 03 29                                           |
| Validity period                                                                                                                                             | 5 years          | Information and reference documents | <a href="http://www.pep-ecopassport.org">www.pep-ecopassport.org</a> |
| Independent verification of the declaration and data                                                                                                        |                  |                                     |                                                                      |
| Internal                                                                                                                                                    | X                | External                            |                                                                      |
| The elements of the present PEP cannot be compared with elements from another program.                                                                      |                  |                                     |                                                                      |
| Document in compliance with ISO 14021:2016 « Environmental labels and declarations - Self-declared environmental claims (Type II environmental labelling) » |                  |                                     |                                                                      |

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